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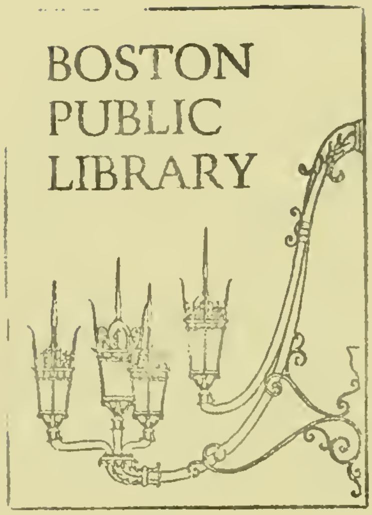

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CONSERVATION IN DOWNTOWN BOSTON

(Preliminary Study)

Prepared By:

Boston Redevelopment Authority
ca, 1973

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INTRODUCTION

INTRODUCTION

DOWNTOWN CONSERVATION STUDY

The massive revitalization program which was carried out by means of Federally sponsored Urban Renewal programs during the decades of the fifties and sixties brought dramatic changes to the Downtown area of Boston. Aimed at attracting business back into the city from the suburban fringes, and at cornering the home offices of large insurance companies and financial institutions, the massive public investment in the new Government Center, Waterfront area and West End Renewal Projects did in fact attract private investment in the construction of new office space. The physical impact of public and priva development activity is obvious in the numerous high rise office towers which have dramatically changed the Boston skyline within a period of ten years, as well as in the monumental structures of the public sector.

In the 300 years since its founding, Boston has rarely seen such abrupt changes to its physical form. Even the Great Fire of 1872, which destroyed al most all of the commercial district of the city, resulted only in a temporary disruption to the urban fabric. Within a year or two most of the district had been rebuilt in its pre-fire form. The development of the nineteen sixties wa decidedly different from the last wave of building activity in Boston. Consol idating smaller parcels of land and obliterating earlier streets and alley way the monolithic towers not only change the skyline through their vastly increas height, but also alter the streetscape at the pedestrian level. Generally sur rounded by open plazas, the new towers, unlike their predecessors, are set bac from the streetline and sometimes have lobby areas which are further recessed under the building.

In addition to the direct impact on Boston's form and architecture, the new high rise development has had, and continues to have, an indirect impact on the economic viability of the city's older buildings. The prime tenants of three new towers under construction will be vacating a minimum of 500,000 square feet in older buildings. The total effect of this movement away from older space is not yet known.

The paradox of the present situation is that Boston's distinctive physical character, which has helped its competitive position in the quest for a new high grade service economy, is in danger of being eroded. There is a clear perception in the public mind that Boston is special - that it has a scale and ambience that distinguishes this city from other great American cities, that makes it the "Athens of America." Some of this special character derives, without doubt, from its Revolutionary era landmarks and its residential architectur But part of that character results from the form and architecture of the commercial areas of the city - especially the Downtown.

Clear pressures for change exist in Downtown Boston today. Whatever the future of office construction, the effects of recent developments on the marketing of space in older buildings, and on real estate speculation will be felt fo some time to come. And the zoning and assessment practices which allowed and encouraged the high rise boom still create conditions which are unfavorable to 19th century commercial structures.

The problem now is to determine what contributes to Boston's distinctive character, to evaluate which buildings, groups of buildings, other physical elements or characteristics should be conserved, and to develop a process for evaluating future changes. Change must, and will, continue to occur in the

Downtown. The task is to provide for, and guide, incremental growth which is appropriate to the Boston environment. To do so means addressing not only the questions of what constitutes architectural value and visual quality in the Downtown, but also the problems of economic viability and productive use of limited resources.

This is the first in a series of reports on "Conservation in Downtown Boston". This first phase, a visual analysis and statement of policy recomendations having to do with conservation priorities and design evaluation process was assisted in part by a Comprehensive Planning Assistance Grant from the Department of Housing and Urban Development.

The purposes of this report are several. The first is to trace the economic origins of Boston's physical growth and the architectural forms which evolved with changing economic conditions. There is a conscious effort to call attention to commercial architecture as meriting the attention long paid to residential and institutional, especially church, buildings of the same eras.

The second purpose is to evaluate and to establish a process for evaluatin the relative significance of buildings and groups of buildings in the Downtown. Broadening the criteria for evaluation from the traditional measures of significance, the evaluation system is also an attempt to objectify and to rationalize selective choices.

Third, the first phase report seeks to determine what are the significant patterns of urban development in the Downtown and the characteristics which contribute to or disrupt visual identity.

The fourth purpose of the report is to break down the practice of treating Downtown as a single unit, to outline different policies for different building and areas of the Downtown and to develop a process for guiding new development so that it is compatible with its particular environment.

Finally, the report identifies certain predominant building types found in nineteenth and early twentieth century commercial architecture which can be use as prototypes in an investigation of rehabilitation opportunities.

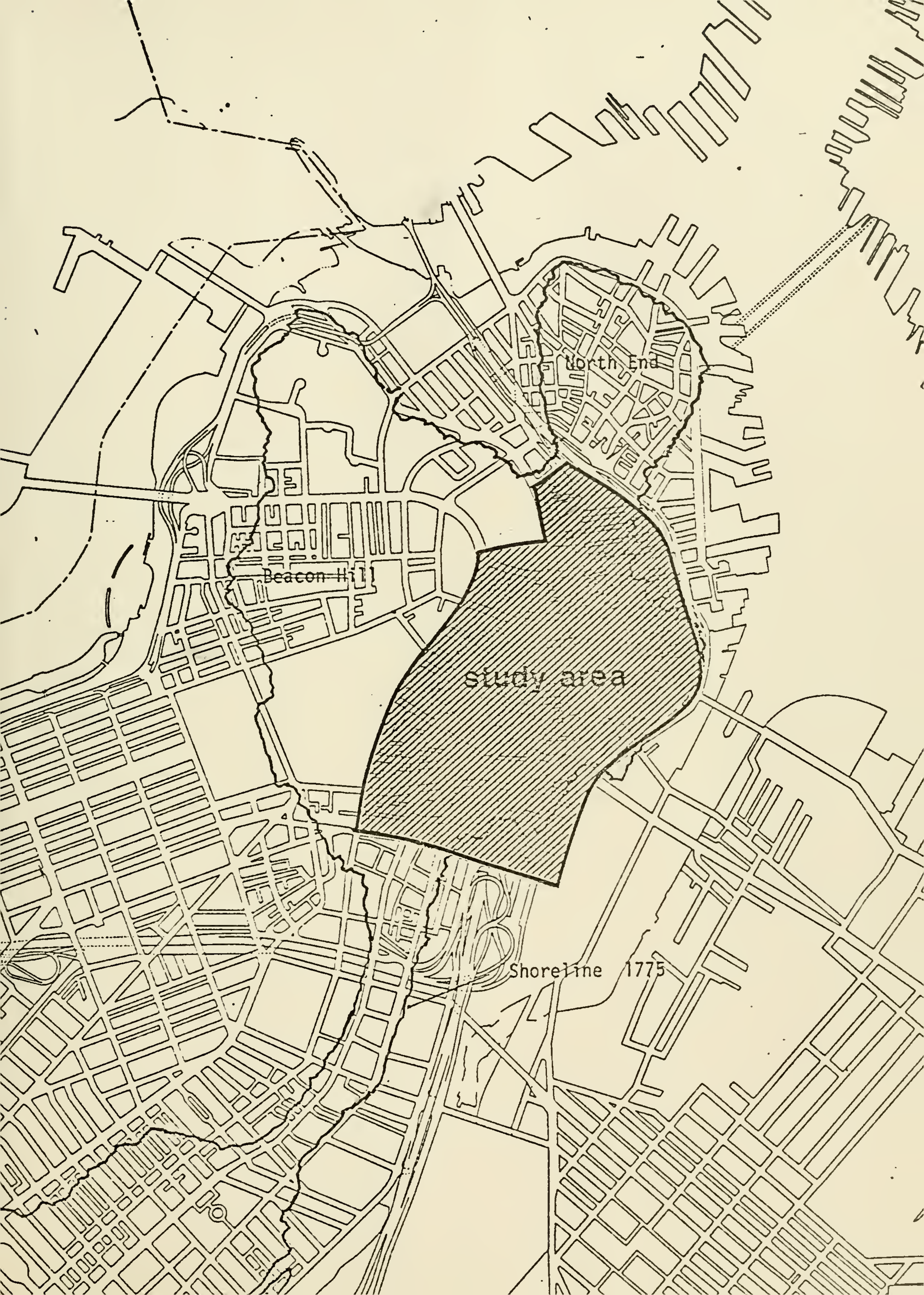
Phase II of the study will deal with the economic factors of Downtown conservation. This phase will review effects of the probable local zoning and assessment practices and of state and federal tax policies on older buildings. It will consider the indirect effects of new construction on these buildings, and will attempt to identify possible markets for nineteenth and early twentiet century commercial buildings. The third phase will include a strategy for acti and specific proposals for Downtown conservation.

It is an underlying assumption of this study that most Bostonians do not know as much as they might about the economic history of their city, and the way that this history is expressed in the architecture and urban form of Boston Downtown.

It is further assumed that this history and its architectural expression enrich the quality of life in this city and that, without attention, the direct and indirect impacts of new high rise development - both office and residential

will obliterate what remains of non residential, 19th century Boston.

Finally, it is earnestly believed and offered here for testing, that new and old have been, and can continue to be accomodated comfortably in Boston, but not without public policy and incentives to bring it about.


North End
Beacon Hill
study area
Shoreline 1775

THE STUDY AREA

HE STUDY AREA

(Study Area Defined)

The area of context for "Conservation in Downtown Boston" is the original ead of the Shawmut peninsula. With the exception of Charlestown, this is the ldest settled area of Boston and has been the economic, political, and psychological core of the city and region since soon after its founding in 1636. t includes not only the business area but the residential neighborhoods of eacon Hill, Chinatown, and the North End, and the historic Boston Common.

The specific focus of the study is that portion of the core area which still retains numbers of 19th and early 20th century commercial structures, whi unctions as the central business district, and where the greatest pressure for ew high rise development exists.

(General Characteristics)

The predominant physical characteristics of Boston, two hundred years afte he Revolution, are still Boston Harbor and the Charles River. Though much altered, these two natural features along with the Fort Point Channel, a dirty emnant of the original "South Bay", and the depressed Massachusetts Turnpike xtension, define the regional core. Once a hilly peninsula, the area now features one clearly recognizable hill - Beacon Hill - and some lesser swells. uch of the area is flat: filled areas created from former coves and mudflats.

Boston's skyline today is taking on a decidedly twentieth century appearan ith a dense concentration of office towers clustered in the financial district and more sparsely distributed along a conceptual high rise "spine" extending

outh from the business district and flanked by low rise areas of residential Back Bay, Bay Village, and South End. The changing skyline reflects in part the changing economic role of the core area. While industrial activity and ome of the retail functions of the city have dispersed to suburban locations, he service economy has grown rapidly in the last decade. Office jobs increased 38% from 134,000 to 185,000 between 1960 and 1975 and office space has increased 15 million sq.ft. during that time. With over 300 insurance companie ational banks, trust companies, savings institutions and cooperative banks located here, Boston is one of the leading suppliers of financial resources to the nation.

Boston's core area also serves a variety of other functions - as the seat of state government and a federal administrative center for New England, a ational center of higher education and medical services, an international port and the retail, cultural, entertainment, and transportation center of the regio Typically, these functions are compressed into recognizable subdistricts. With in the specific study area, this subdistrict specialization can be seen in the clustering of the garment industry in the Harrison/Beach Street Area, the entertainment district along Washington Street and the leather district near South Station. The financial district is most expansive - extending now from Beacon Hill and Government Center to South Station.

APPROACH AND METHOD

PPROACH AND METHOD

In order to determine both what individual buildings ought to be conserved nd what significant district characteristics should be considered in future esign decisions, a two part system of analysis has been developed.

The first part of the system relates to the relative value of individual buildings, measured in numerical terms, and based on the following criteria:

1) Associative Value - the traditional measure of significance, pertaining to a building or site's association with important persons, groups or events.

2) Style Representation - the degree to which a building represents an architectural style. The system can distinguish between buildings which have primary, secondary and tertiary distinguishing characteristics as opposed to simple or altered versions of a style.

3) Architectural Evolution - the place of the building in the history of architectural problem solving. Buildings which were forerunners of a particular style or technology are valued more highly than conservative solutions. This category also appraises the current rarity of a building in relation to the numbers of other examples of its type.

4) Urban Design Contribution - how a building relates to its setting. The system allows for the recognition of buildings which may be architecturally undistinguished but are "supportive" - contribute to the cohesiveness of a group of buildings or subdistrict.

5) **Structural condition.**

6) **Rehabilitation Feasibility**

Use of the first four criteria provides a reasonably objective evaluation of the individual significance of each building within the study area. The latter two criteria help in an assessment of priorities for conservation policy and programs.

The second part of the analytical system relates to subdistrict characteristics and has two purposes. The first is to compile the data for individual buildings so as to evaluate the relative significance of one area versus anothe in the sense that each is, first, an accumulation of individual buildings. The other purpose is to try to describe the characteristics which contribute to or disrupt the visual cohesiveness of an area and to define the subtle reasons why one area "works" or is cohesive and another is unclear, lacking in identity and apparently unstructured. This analysis is the first step towards predicting the effects of new development and guiding the design of development projects (rehabilitation or new construction) so as to be harmonious with the significant visual characteristics of the district and subdistrict.

The elements contributing to visual structure and identity include the following:

1) Form - the overall shape and pattern of an area as defined by its topography, the type and degree of enclosure of its spaces, the presence or absence of distinctive boundaries and other criteria.

2) Scale - the perceived relationship between buildings or other elements and the average size of human beings. Scale is determined in part by the relationship of the entire building mass to open area and to the proportion of individual architectural units (of the facade, for example) to human height.

3) Rhythm - the cadence of recurrent elements such as facade projections and recessions, or the spacing of windows in relationship to wall surfaces.

4) Expression - the manner and the degree to which use, ownership, symbolic meaning are conveyed.

5) Light - the presence of color and pattern conveyed, for example, by building materials.

COMPONENTS FOR COMPLETE EVALUATION SYSTEM

	Historic Associations	Style Representation	Architectural Evolution	Urban Design Contribution	Structural Condition	Rehabilitation Feasibility
SINGLE STRUCTURE	each building	individually reviewed	and evaluated			
DISTRICT	composite made	from individual	buildings except for	here *		

* FACTORS FOR URBAN DESIGN ANALYSIS

Form	Topography
	Climate
	Connective Pattern
	Volume/Voids
Scale	Proportions
	Perception of Mass
	Grain
Rhythm	Cadence of Elements
	Texture
Expression	Symbols
	Reference Points
	Sequences
Light	Color
	Visible Patterns

SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

The survey work and application of the analytical system are still underway in the Downtown. But some preliminary findings are beginning to be apparen

First, it should be stressed again that while Boston is perhaps best known to the world for its seventeenth and eighteenth century associations and landmarks, it is in reality a predominantly nineteenth century city. Its commercia center as well as principal residential neighborhoods reflect, to a large exten the density, scale, architectural styles and attitudes towards urbanization whi evolved during the nineteenth century. Within the Downtown only about 20% of the buildings which existed in 1884 still remain - Scollay Square and the Waterfront having been replaced through public action. But where the existing urban fabric has not been drastically altered by recent development, it is stro ly nineteenth century in character - even where interspersed by early 20th century buildings.

Furthermore, that character is comprised not so much of individually noteworthy buildings, 'tho, of course, there are many, but of districts having strongly cohesive qualities. Some of those districts are homogeneous, such as Bay Village, the North End, Leather District, and Tremont area. Others, such as the Broad Street/Custom House District are exceptionally heterogeneous.

The qualities which contribute to visual structure and identity are not so hard to identify in the case of homogeneous subdistricts. A good example of a strongly homogeneous area is the Leather District, a block area located near South Station and built in the last two decades of the 19th century. The Leather District is cohesive for a variety of reasons including the following:

1) Form - the area has a simple grid or axis pattern of street layout, continuous, even enclosure, and distinct edges.

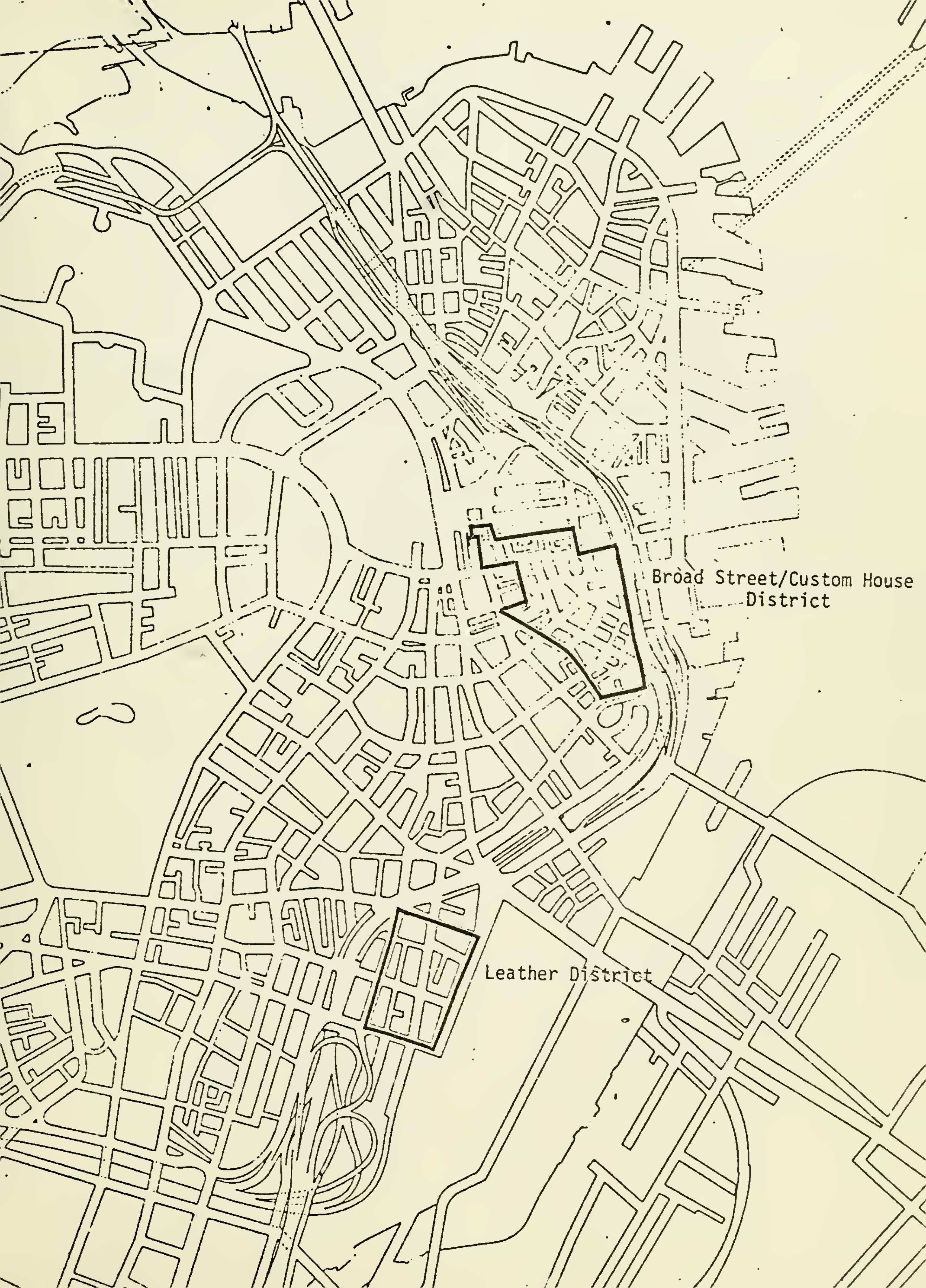
2) Scale - there is a consistent definition of human scale in building mass and architectural elements.

3) Rhythm - the spacing of windows and door openings in relation to wall surfaces is regular and of a consistent cadence.

4) Expression - there is a strong expression of a particular type of economic activity in the treatment of ground floor and basement windows as well as in the graphic details.

5) Light - color and materials are almost uniform.

On the other hand, the visual identity of the very heterogeneous Broad Stre area is harder to define. In spite of changing form, indistinct edges (except along the Central Artery) substantially varying proportions and building mass, the district somehow holds together. The "somehow" seems to hinge on a few characteristics including a fairly constant - 'tho not uniform - sense of enclosure, and expression of commercial activity in ground floor facades. The most important element of structure in the Broad Street area, however, is the presence of certain highly identifiable landmarks which serve as reference point for the subdistrict. Moving through the area, an individual is constantly reoriented by the presence of these landmarks as parts of sequences or as the termination points of vistas.


Broad Street/Custom House District
Leather District

The implication for urban design policies for these two subdistricts are obvious. Within the Leather District, which has few individually noteworthy buildings, individual structures might well be replaced, but by buildings conforming to fairly strict guidelines relating to existing characteristics of scale, rhythm, expression and light.

In the Broad Street area, which actually has greater architectural/historical value, the design guidelines could be, in some ways, looser, but more refined. In other words, it is more imperative to retain individually noteworthy buildings - especially those serving as landmarks - in the Broad Street area. Sight lines of landmarks must also be kept open. Other guidelines should addre questions of enclosure and the treatment of ground floor facades. Within individual blocks having a consistent building mass and scale, new development should respect these characteristics. Yet for many sites within the subdistric design guidelines would be minimal.

DESIGN POLICIES FOR THE DOWNTOWN

DESIGN POLICIES FOR THE DOWNTOWN

In Boston, the public role in urban design has been uneven and sporadic. Within urban renewal areas, design review has played an important part in carrying out the intentions of the renewal plans. But outside of renewal areas design review has tended to be, as its name implies, a reactionary process. That is design review provides a means of responding to, but not necessarily uiding, new development proposals. By the time a project reaches the design eview, major decisions have been made which affect the form of the project - and which cannot easily be changed. Even minor changes required by design review can cause hardship to a developer.

What is needed, then, is a set of workable design policies which lets the eveloper know what the public sector expects and, therefore, can help to guide development projects from their inception. Such policies need, of course, to be backed by appropriate zoning mechanisms and perhaps incentives. But the first step is to define policies dealing with a range of situations.

CONSERVATION IN DOWNTOWN BOSTON

History and Economic Growth:
Its Expression in the
Downtown Environment

CHAPTER I

Governor Winthrop's Puritan colony selected the small peninsula of Boston, then called Shawmut, for their "New" England settlement in 1630 because of its particular land form. Here was a hilly land mass protected by a deep water harbor and penetrated by navigable rivers. It seemed an excellent choice to build a suitable land base society similar to that of "Old" England. They envisioned large landed estates supported by agricultural products which would be exchanged for desirable British commodities. For the first decade only, this system of trade was profitable owing to the large flow of middle class immigrants possessing British goods.

As early as 1637 the migration was severely dispuped by the English Civil War. Faced with the temporary curtailment of imports and the repeated difficulties of farming the rocky soil, the colonists were forced to shift their energies from agrarian activities to the more productive livelihood of a triangular trade system between Boston, England & the West Indies. Boston food exports (dried fish, poultry, salt beef and pork) found a receptive market in the Carribean Islands where capital gain was realized to purchase English wares which had become too costly to purchase outright. Local industry was directed to that which would advance the trade (e.g. ship building, fishing) or to furnish simple household necessities. These trading activities, closely dependant on the coastal setting of the Boston colony, influenced the town character during the first 150 years.

Visually the early town of Boston during this era bore some resemblance to Medieval London. It was characterized by streets paved with pebbles and faced with wooden houses of overhanging stories placed closely together. (Brick, stone, and lime gained in use towards the end of the 17th century.)

The skyline was dominated by shingle roofs in hipped, gabled, or gambreled form. A few church spires could be seen amidst the cluster of roofs. It was an active seaport, relatively crowded, with heavy concentration around the town dock at the water's edge. A large part of the peninsula was still used for farm lands.

The town's growth began specifically at the sea banks which were dominated by wooden wharves. Irregularly placed, these wharves bustled with shipyards, ropewalks, and other related industry. Other activity appeared around the Town Dock, now Dock Square, the market place for the constant flow of imported commodities. Great Street, now State Street, was distinguished for its retail shops, merchants exchange, and as a main thoroughfare. This street earned its prominence early as at one end, near the junction with Washington Street, was the site of the Town House, a two storied structure serving the civic needs of the community. The other end provided direct access to the sea via the conspicuous brick Long Wharf (1710). Between State Street and Milk Street, leading to the Town Cove was a thick residential settlement, although prominent families preferred the "Court End" of town on Charter Street in the North End. The South End of the peninsula was largely open space consisting of fields, pastures, gardens, and more ropewalks. The Trimountain was a natural barrier facing the northern part of the Common, which was used as pasture land. Although the major industry of the town was located on the waterfront, scattered industrial endeavors existed on the Mill Pond, named for its chocolate, lumber, and grain mills, and west of Fort Hill where three additional ropewalks were sited.

CHAPTER 2

Boston's involvement in the China Trade began immediately after the Revolution and continued until the middle of the 19th century when the sailing vessel was replaced by steamships which were manufactured and operated from other rival Eastern sea ports. Since all former trade routes within the British Empire had been terminated with the Revolutionary War, the colonists were forced to discover new sources of economic vitality. The solution to this dilemma was found by entering trade with China. The nature of this trade was still triangular, based on buying highly prized furs cheaply on the North-West American Coast and selling dearly to the Mandarins on the Canton River Mart. The abundant prosperity resulting from the trade reestablished the maritime focus of Boston's economy. Additionally, surplus capital resulting from this effort lead to the concurrent rapid development of Boston as a major banking and financial center.

Another offshoot of the burgeoning economic explosion was the investment of Boston monies in the textile mills along the Merrimac Valley. Deteriorating political relationships with Europe, culiminating in the Jefferson Embargo (1807) and the War of 1812 had temporarily disrupted trade and the importing of European manufactured products on which Boston had so heavily relied.

These factors coupled with the success of F. C. Lowell's textile factory in Waltham (1814) spurred Boston capitalists to finance other similar operations along the Merrimac Valley where water supply and labor were both readily available. Boston, itself, profited by becoming a market and trading center for the finished textile goods.

Thus the town of Boston, experiencing commercial, financial, and gradual population expansion, responded by changing in form and character. The primary change to the peninsula occurred around the shoreline where irregular coves were transformed into useable tracts of land by fill from nearby hills.

The most dramatic land fill operation of this period, though, took place around the active waterfront. Here a relatively large development of new wharves and brick warehouses were erected on two new streets--India and Broad Streets. Planned by Charles Bulfinch, this improvement added substantial dignity to the port. Although the remains of India Wharf were razed in 1962, segments of Central Wharf (1817) and a few brick warehouses on Broad Street remain as evidence of that burgeoning waterfront growth.

Even with these various alterations to the harbor, Boston in the first quarter of the 19th century still retained much of its earlier silhouette. A jagged shoreline still existed around Liberty Square and Dock Square, the established market and retail center of town. Nearby State Street became the established street for finance with new brick buildings erected for banks and insurance offices.

The greatest sign of the new accummulation of wealth in Boston, however, was exemplified by the distinctive style of Federal Architecture designed by Charles Bulfinch. With Bulfinch as architect, Boston emerged as a town of urban elegance. His most savored public works included the new State House, the rebuilding of Faneuil Hall, and India Wharf. Equally as important were his many residential commissions which showed the prosperity of the Boston merchant. For these men, Bulfinch designed handsome brick houses: the Tontine Crescent on Franklin Street (demolished 1857); and on Park Street.

Simultaneously, the area around Fort Hill became available for residential use and almost immediately large brick residences surrounded by large gardens sprouted up on Pearl Street, another indication of the favorable economy.

CHAPTER 3 .-- THE PORT

The golden age of the port of Boston lasted roughly until 1850. In addition to the China Trade, the port expanded to meet demands of increasing trade and communication with England. Boston became the exclusive American terminal in 1841 of the Samuel Cunard line and in 1844 of the Enoch Train/ McKay line. Both provided service between Liverpool and Boston giving Boston complete dominance over the rival port of New York until 1860. It was not only the port activity which transformed Boston into a major U. S. city; but, the simultaneous development of the railroads financed, in large part, by fortunes made in shipping.

Seven railroads were opened in the city between 1835 and 1850 establishing Boston as the regional center of New England capable of distributing all incoming cargoes from the port to various points inland. Boston absorbed all the commerce from New England during this era and outstripped all previous records on volume of trade and value and diversity of investments. Commercial capital ranged in committment from purely local and regional investments. (finance, textiles, real estate, timber, shoe & leather products) to far-reaching national projects (western railroads and mineral rights.)

Boston boomed as New England textile and shoe manufacturers demanded offices, warehouses, stores, and exchanges for better business transactions. The city, thus, accelerated its position as a financial and marketing center. Yet, industry and manufacturing remained small scale and local in character. Real economic activity was conducted by the business giants, while the remainder of the population lived out their lives as skilled laborers, small traders, or petty artisans. Compared to other rival cities, Boston's population growth was small. The increase in prestige due instead to the spectacular accumulation of wealth by relatively

CHAPTER 4

FROM PORT TO MANUFACTURING - COMMERCIAL TO RESIDENTIAL

The graceful pattern of living in Boston was severly disrupted after 1850 by three significant factors: The unexpected wave of immigrants, the gradual decline of the Port, and the cataclysmic fire of 1872. Although Boston's economy remained steady during this period, the financial base shifted from port-related activities to factory production. For the first time in the history of the city, Boston became a manufacturing town.

The decline of the Port during the 1850's and 60's was in part tied to miscalculations about the railroads. Instead of strenthening local railroad lines to connect directly to Chicago and thus the nation's rich grain supply, Boston capitalists preferred the safe investment of independen Western rail lines. This choice, although profitable to the immediate financiers, eventually grew into a hardship for Boston and New England, whose rail lines reached only to Albany. The lack of through connections caused freight and rate problems, and the transport of western agricultural products for export was monopolized by rival ports. The concurrent replacement of the McKay clipper ships by steam vessels, manufactured in New York and other ports (since Boston was not accessible to the nation's steel supply) furnished another reason for decline in port vitality. Boston's losses were quickly translated into New York's gain, and stimulated New York's development of newer transport methods and facilities while Boston's port lagged far behind.

The decreasing significance of the Port during mid-century coincided with the large wave of Irish Immigration in 1848. The pool of cheap labor supplied by the immigrants provided Boston capitalists with the necessary component to finance small factories. Within two decades, Boston was considered a major manufacturing center, its principal product

The commercial prosperity of the affluent, however, did affect the entire community through new development and civic improvements, spurring a sense of pride and optimism about the city. As the city outgrew its peninsula, it extended its original geographic boundaries by erecting bridges to the mainland and annexing neighboring towns.

To accompany the railroads, depots were needed, and early in the century (1833-1839) the South Cove was filled in to provide land for the Boston & Albany line. Streets were illuminated by gas in 1834 and the Cochituate Water System supplied the community with pure water by 1848. In 1847 the steam railway opened service to nearby suburbs, encouraging residential movement to more spacious land. Between 1853-1859 the horse car (a streetcar drawn by horses) replaced the omnibus (merely a horsedrawn coach) and transportation within the city was greatly improved.

The greatest civic enhancement was the filling of the Town Cove for the Quincy Markets, a visionary project carried out by Josiah Quincy, 2nd Mayor of Boston in 1827, only 5 years after Boston had acquired its city charter.

Boston, now cosmopolitan, with its port opened to Europe, was a mecca for ideas. Since the leisured elite could finally afford the time and money for cultural activities, buildings were erected for literary clubs, libraries, museums, theatres, and concert halls. In this "hub of the universe", poets were equally as recognized as statesmen.

Reflecting the new dignity and republican ideas, was a substantial change in architecture, characterized by the wide use of Quincy granite formed into the Greek Revival Style. The leading figure in this movement was Alexander Parris, and his chief design was for the Quincy Markets (1828). Other surviving examples from period are the granite warehouses on Broad Street, the State Street Block, Suffolk County Jail, and St. Paul's Cathedral.

being ready made clothing. The transition of capital occurred with relative ease owing to favorable economic conditions: demand for ready made clothing stimulated by the Civil War; labor supply secured in abundance; and a system, refined by machine technology.

This period in Boston was marked by traumatic changes in land use in the central city. The principal alteration was caused by the infringement of commercial building on the wealthy residential areas of Fort Hill and the original South End. On Summer, Franklin, Pearl, and High Street granite mercantile blocks of 5-7 stories supplied needed space for offices, small factories, stores, and warehouses. Accordingly, retailing outlets were continually moving into the Washington Street area conflicting with the residential tranquility previously enjoyed.

An equally persistent imposition on the city's limited space was the immigrant's need for housing. This dramatic need had the two fold effect of promoting real-estate speculators to erect tenements by demolishing former middle class houses and of prompting landlord owners to convert older structures into multi-housing units. The former process was particularly obvious in the West End, parts of North End, and North Slope of Beacon Hill; the latter process was evident on Broad Street, the Fort Hill region, and South Cove. Boston's, industrial condition became characterized by new granite commercial structures teeming with activity amidst scores of inadequate slums. Those who were able to leave vanished from the crowded city to newly developed suburban communities, a solution made possible by improved transit facilities to annexed municipalities.

The Back Bay and new South End land fill operations were a major contribution, started in this period, toward solving the critical need for space; these residential developments, however, were only designed to meet the demands of the middle class.

The final shock to the strained peninsula came in the form of the Fire of 1872, which destroyed most of the buildings in the commercial heart of Boston between Summer and Pearl Streets from Washington Street to the Harbor.

CHAPTER 5

THE FIRE AND AFTER

The burnt district of Boston included over 60 acres of land in the city's business center. Crowded warehouses held for distribution the output of factories from all over New England: cloth, boots, shoes, wool. Large wholesale dry good firms, boot and shoe factories, retail stores, and boarding houses were tightly crammed into this district. The district, itself, had been the pride of Boston built in large part by architect G. F. Bryant, and composed mainly of solid granite buildings with plain facades topped by wooden mansard roofs. The destruction of the buildings was equally as significant as the severe loss to businesses, factories, goods, and employment. All leather dealers were ruined; all save one of wholesale clothing firms, the entire boot and shoe business, 3/4 of the paper warehouses and the wool trade and whole sale dry goods concern were decimated overnight. The loss included Fort Hill, the hazardous tenement area, which the City had begun to demolish in 1868 to fill in Atlantic Avenue.

Remarkably within one year, most of the buildings within the burnt district were rebuilt and many of the larger established firms returned to the area. Although some of the streets within the area were widened, the basic earlier street patterns were maintained with two exceptions: Fort Hill was totally leveled to add 13 acres of land to the city and, Post Office Square was laid out. Architecturally there were noticable changes. Newly enforced stringent fire codes placed certain limitations on design. Freestone, marble, and brick replaced the previously popular but dangerous iron front system, height was now to be limited to 80-100 feet, and an additional requirement for load bearing partition walls all served to thwart progressive ideas of steel frame skyscrapers which were gaining acceptance in other major cities. Instead of moving upward, Boston moved outward to the newly developing Back Bay and other suburbs.

The first manifestation of an outward movement caused by the fire was the beginning of the resettlement of the leather and shoe industries into the South Cove and newly built Fort Hill warehouses.

The re-construction in the burnt district, then, basically imitated what previously existed with few stylistic changes. Noteworthy were the polychromatic gothic style stores along Summer and Hawley Street - rendered in stone or paneled brick, as well as the reiteration of granite building on Franklin Street. The post fire buildings on these streets are still largely intact, maintaining the earlier character of the district.

CHAPTER 6

"Conservative" Era--Late 19th, and early 20th

Boston in the late 19th century rested on the fruits of past laurels. A conservative outlook, a desire to maintain the status-quo, prevaded all aspects of the basic economic existence. The roots of this attitude began with large financial operations. The backbone of the economy had traditionally been the immense wealth accrued during the China Trade Era. This capital had successfully financed local, regional, and western railroads; local and regional manufacturing; and several other local and regional industrial pursuits. During the late 19th century, though, large profits, especially those made from the lucrative railroads, were invested in secure 4% bonds or legally bound in trusts; thus, little capital was available for backing new enterprises.

Additionally, the Civil War had stabilized the Industrial System, founded on coal and iron. Neither were readily available in Massachusetts, adding another portentious element to possible industrial growth. Boston had a further problem with a comparatively high municipal tax rate. This taxation on top of government tax demands was particularly disastrous for the small manufacturer, who was often forced to move to more encouraging locations.

Boston now relied on the established manufactured and trade concerns which revolved around the production of clothing, leather, shoes, boots, sugar, candy, meat, and printing products; i.e., those industries which had moved forward with the arrival of the immigrant labor force. Until the 1890's, Boston sustained a position as marketing center for New England shoes and cloth; however, the dry goods market and ready made clothing concerns gradually shifted to New York where the climate for commercial growth was more favorable.

In spite of this prevailing no-risk attitude and the other assorted problems, there were some signs of movement. Particularly helpful to the Boston scene was the consolidation of local and regional transport lines which occurred by combining a system of rail terminals with tracks, warehouses, and the rehabilitation of existing piers. This civic improvement stimulated a new flurry of export trade with Europe of cotton, corn, and wheat--all of which depended on an Eastern Shore Coastal trade.

Financial operations were not at a total stalemate. Boston served as headquarters for the financial operations of the major railroads, the corporate enterprises of large establishments, such as Dominion Coal and Lake Superior copper mines (stocks owned and controlled in Boston). In addition, Boston was able to finance the public utilities--A.T.&T., Edison Co., the New England Company Power System. This was also a period of growth for the insurance business, Real Estate, building trades, and banking. By the turn of the century, the city was the home of 100 various banks and financial institutions.

It is not surprising that no major changes occurred in land use in the downtown area during these comparatively quiet decades. The central city's land had been almost fully devoted to commercial use since the Fire of 1872; the major districts, already established, never shifted but swelled slightly to accomodate more activity. The retailing center expanded as far south as Boylston Street, between Washington and Tremont Streets; the market area was still retained around Faneuil Hall and Dock Square; and the financial district expanded from State Street to Post Office Square. Fringe area did not change significantly and continued to hold buildings of small manufacturing concerns, warehouses, occasional stores and offices.

Because of the intense use of the limited land in the inner city and the growing financial institutions which now characterized Boston business, new structures were erected specifically for these purposes.

Finally Boston accepted the advanced technology which lead directly to the early skyscraper, designed in the Commercial style.

State Street was rebuilt with distinctive granite buildings, of 8-10 stories. Bordering State Street on Congress Street, Broad Street, and as far as Tremont Street were other locations of these grand edifices. Their appearance was the beginning of a visual change to the former 19th century downtown. Surviving from this period are Board of Trade, the Ames, Hemenway Building.

CHAPTER 7

Mid-Century to Present

Transition from manufacturing to service ~~board~~ based economy

Boston's meager grip on economic stability slipped into decline by mid-20th Century. Every aspect of her economic state was beset by serious problems. Banking, for so long a dependable source of wealth for the city, could no longer be sustained by Boston's no-risk trusteed wealth, resulting in the replacement of Boston capital by mergers from other cities. Large industrial strongholds like G.E., A.T.&T., United Fruit, and United Shoe succumbed to non-Boston capital, enlarging the deterioration of the local power base.

Another factor in the lagging economy of the city was the loss of jobs. Local industry besieged by strikes, high taxes, and a decreasing labor pool, gradually moved to the South or Mid-West where conditions were more favorable.

As machine technology perfected the assembly line techniques in the production process, manufacturing firms needed larger structures and sought re-location in the suburbs. Easily accessible since the growth of the highways, the suburbs also were meccas of cheaper labor and lower taxes. Even many wholesaling activities followed the trek to the suburbs.

Boston's waterfront had managed to resume a steady prosperity during the 1st half of the 20th Century through intercoastal shipping activity, two war efforts, and some foreign export trade. After World War II, however, high operating costs, obsolete piers, and congested city routes contributed to percipitous decline, eventually causing the withdrawal of most New England goods to New York for export. Only in the retailing and financial districts were activities great enough to weather the economic storm.

Strengthened by a unified transportation system, begun in 1897 with the Tremont Street Subway, the retail core around Washington Street managed to remain competitive with suburban shopping centers. Its attraction, in part, continues to be its central location, adjacent to other downtown centers of employment. The financial district, surmounting mid-century difficulties, has emerged energetically since the 1960's. The continued presence of local and regional business headquarters stimulated the expansion of the service industry. Since information is the principal product, conducted largely on a personal basis, a downtown location is advantageous.

The gradual transition to a service-based economy has had a pronounced effect upon the re-vitalization of the downtown--its economy; and it physical character.

The 20th Century visual alterations had begun with the early skyscrapers and has evolved to the concrete, steel, and glass towers of the 1960's and 1970's. This dramatic metamorphasis was largely in response to zoning practices and technology, as well as the economic forces that were thrust on the central city. Boston's 1924 zoning code regulated height, density, and spacing of buildings in commercial districts which indirectly created the "set back" concept of design. The most noteworthy examples of this are the New England Telephone & Telegraph Building on Post Office Square......

Building in the downtown did not resume in large proportions until the 1960's. By this time, a new zoning code regulated building density by setting maximum floor area ratios in each zoning district. This, it was believed, would aid the city's tax base by attracting new buildings and simultaneously insure modern construction practice. Boston's steel, glass, and poured concrete towers of this 1960 decade stand on scattered sites throughout the downtown. Although the new towers are place on an unseen curve high rise spine concept, running through the middle of the heart of the city, this observation can be made from miles away.

20th Century Boston, though, has maintained its district character. In spite of the disruptive highways, which often bi-sect an area, and the large scale office towers, there is still a compendium of earlier structures on 19th Century streets which mark the past.

CONSERVATION IN DOWNTOWN BOSTON

Building Styles

Building Styles

The buildings that remain from the nineteenth and early 20th century in Downtown Boston express the evolution of commercial architecture as it responded to the economic needs, technological capabilities, and esthetic tastes and fashions of the times. In the broadest terms the buildings can be grouped into "pre-fire" buildings, or those built before the great fire of 1872, and "post-fire" buildings. Within these categories, the downtown provides a sampling of the 5 principal popular architectural styles which were applied to those forms.

This following short guide describes the characteristic elements of downtown commercial architecture and suggests where notable examples can be located.

Federal Period (post-revolution - 1830's)

After the revolution, architects and builders sought a new building style to honor the emerging new nation. Appropriately, the new style became known as Federal. Unlike more recent architecture in which specific building types are selected for a particular function or use, the Federal style was used widely and for all types of buildings. Beacon Hill and Charlestown's many residential examples are quite similar to the several samples that remain near the waterfront and that were originally warehouses and wharf buildings. They all are small 3 to 4 story boxy structures with hipped roofs and little decoration other than carved wooden entrance ways. The distinctive square top story windows are a clue in identifying Federal style buildings. The standard plans of the Federal structures makes these downtown buildings particularly adaptable to non-commercial uses today.

Location of examples:

Central Wharf, 73-89 Central Street at McKinley Square, 1817-1819.

64-68, 72, 102 Broad Street, c. 1809.

Granite Era (1820's - 1870's)

The political and idealogical attitudes of young America continued to be translated into architectural terms. Federal designs gave way to a new style, the Greek Revival, in imitation of architecture of the earliest democratic system - one considered to be most appropriate to the new democracy. In Boston, as in most cities, civic structures, such as Quincy Market and the Custom House, began a trend which soon spread the Greek Revival temple shape to residential buildings all over the city. In their search for a material to express the monumentality, stability, and longevity of the city's buildings, architects found granite most suitable. Later, builders of extensive waterfront complex and of many of the new downtown commercial structures used granite to convey the same monumental enduring character.

The Greek Revival began a fashion of reviving earlier European architectural styles that were used in pure form and in imaginative interpretation throughout the rest of the Vistorian era. Often residential architecture mimicked European styles exactly. Commercial building designers generally could only apply the decorative elements of these styles to the building facades, because the building plans had to conform to the practical matters of business needs and land costs. Ashlar granite was popularly used for these decorative facades.

The downtown streets were lined with rows of these attractive granite buildings. Fortunately several examples of these commercial buildings escaped destruction in the Great Fire of 1872 and remain now. These structures are often large blocks or rows and are four to six stories high. Built up like a layer cake, each story has its own window style and ornamental format and is separated from other stories by parallel bands and cornices. The horizontal direction is strongly emphasized. Buildings which imitated Italian sources generally have heavy stone brackets supporting cornices and a series of arched windows called an arcade. Fewer buildings were influenced by the French Second Empire, often known as French Mansard style: they often have extremely detailed facades with projecting columns and pilasters, entrance pavilions, and the popular mansard roof.

Location of examples:

(Greek Revival)	Faneuil Hall Markets (Quincy), North and South Market Streets, 1826.
	Custom House, State Street at McKinley Square, 1834-1847.

Location of examples (cont'd):

(Italianate)	*State Street Block*, 177-199 State Street, 1858.
	29-43 Temple Place, c. 1860's.
(French Mansard)	*Old City Hall*, School Street, 1862.
	Wesleyan Association Building, 36 Bromfield Street, 1870.

Post-Fire Era (1872 - 1880's)

It is easy to see how architects continued the same designs from pre-fire years when they were rebuilding "the burnt district". Although all the facades, ashlar granite, brick, and especially cast-iron facades had exploded in the fire, new safety precautions allowed architects to continue using these popular materials. Downtown, luckily, has a few examples of the vanishing cast-iron tradition. Merchants then applauded the improvements in cast-iron construction: such buildings, besides being swift to erect (the bolt-together parts are really ancestors of the pre-cast/pre-moulded assembly methods today), had more window space for display purposes because the strength of the iron permitted less of itself.

By the 1880's, most commercial buildings had brick facades. The construction industry, due to an earlier depression, found brick the most economical material. Architects also used bricks for the facade decoration either by itself or with carved terracotta or stone. This trend signaled the beginning of a district commercial building style that was independent of fashions in residential architecture.

Location of examples:

(Cast-iron)	114 State Street, 1867, 1896.
	Long's Building, 40-42 Summer Street 1873.
(Granite)	Transcript Building, 332 Washington Street, corner of Milk Street, 1874.
	60-74, 43, 57-69 Franklin Street, c. 1873-1875.
(Masonry)	Jordan Marsh Store, 466-472 Washington Street, corner of Avon Street, 1873.
(Brick)	Kennedy's Store, Summer and Howley Streets, c. 1873-1884.
	Sager's Electric Co., formerly Chadwick Leadworks, 176-184 High Street, 1887.

Turn of the Century (1890's - 1910's)

Towards the turn of the century, Boston's commercial construction flourished, especially around the edges of the "burnt district" and along prominent frontages like Tremont and State Street where smaller buildings that escaped the fire had been located. The beginnings of the distinctive commercial style in Boston, seen in the 1880's, took firm footing by the 90's under the influence of rapid technological advances.

Building heights were pushing upwards to eight, nine, and ten storie permitted by the new steel frame and reinforced concrete skeletons, and efficient elevators. These "tall" buildings forced architects and builders to change the traditional "facade" organization, i.e. the stacks or layers of floors. A three part system, introduced by Richardson, became popular: it orgainzed the wall visually and indicated the activity going on inside. Ground floors had huge windows for displays with a more ornately decorated story above for director's offices. Upper floors=devoted to worker's space=soon appeared as a honeycomb of windows, each exactly like the rest. Finally, the top, or mechanical floor, was finished with considerabl decoration and usually different windows. For several decades, this three part system dominated Boston's commercial building.

By the beginning of the 20th century, commercial buildings, although still looking similar, had to house specific functions instead of th traditionally combined office, retail, and warehouse activities. Building plans developed to fit these functions. Office buildings, most often built in stone or a combination of stone and brick, multiplied over the downtown and especially in the financial distric These buildings, considered skyscrapers in 1900, now are the human scale backdrop of the huge office towers.

Warehouses maintained the three part system but became less and less "decorated". They were concentrated in districts, for example, for leather and garment making near South Station and Chinatown.

Early 20th century retail buildings replaced earlier structures in the same dense retail precincts. Some of the commercial building abandoned the three part system. Usually six or seven stories high and quite narrow, they relied totally on the street windows for display light. Thus, street facades showed identical stories consisting of glass windows, usually partitioned vertically in three large panes held in by narrow metal or wooden frames--buildings that are forerunners of today's steel and glass skyscrapers.

Turn of the Century (cont'd)

After the turn of the century, the exotic Victorian ornamental designs were replaced by a new fashion, championed by the French architectural school-Ecole des Beaux Arts. All types of commercial buildings began to be festooned in classical decorations--urns, scrolls, key patterns, mythological figures, swags, cornocopias, and countless other designs.

Location of examples:

Exchange Building, 53 State Street, 1889-1891.

Brazer Building, 27-29 State Street, 1896.

31-33 State Street, 1894.

Board of Trade, Broad Street, 1901.

16-18 Winter Street, 1914.

New Studio Building, 104-116 Tremont Street, 1917.

Post World War I (1920's - 1930's)

Architects soon had to deal with the problem of organizing the facades of increasingly taller buildings. The traditional 3 part separation - ground floor, honeycomb of offices, and mechanical roofline floor - began to look unbalanced when the honeycomb section became more than ten or so stories. Designers tried to emphasize the height of buildings. All parts were arranged to lead the observer eye from ground to floorline without any interruptions. The main shafts of the buildings rose directly from the street but near the top, an inner core climbs to successively higher rooflines like a wedding cake. The wall and window arrangement also restated the building's height: vertical panels of smooth wall from ground to roofline alternated with similar panels of windows, often set in a metal of contrasting color to the wall. Sometimes, on brick buildings, the brick color generally changed tone from dark at the street to light at the roof, again to emphasize height.

Location of examples:

Batterymarch Building, 58 Batterymarch Street, 1927.

John D. McCormick Federal Building, Post Office Square, 1931.

State Street Bank Building, 109-123 Franklin Street, 1929.

Western Union Co., Building,

Post World War II (1940's to present)

Commercial architecture since WW II is the era of the high-rise and super-block - all using the most modern building technology. These structures are generally so huge that the essential design is dependent on the shape, height, and the relationship of the wall and window. Applied ornament, a hallmark of earlier decades, is noticably absent. With few exceptions, recent high-rise buildings returned to the traditional facade organization, but it is passed down to just those three parts. Above the ground floor (which most often is recessed behind the massive piers supporting the building) is a vast grid of windows in endless repetition. Crowning the structure are the mechanical systems set on top of the roof.

CONSERVATION IN DOWNTOWN BOSTON

System for Evaluation of Historical, Architectural And Visual Content

COMPONENTS FOR COMPLETE
EVALUATION SYSTEM

	Historic Associations	Style Representation	Architectural Evolution	Urban Design Contribution	Structural Condition	Rehabilitation Feasibility
SINGLE STRUCTURE	each building	individually reviewed	and evaluated			
DISTRICT	composite made	from individual buildings	except for	*here*		

HISTORIC ASSOCIATION

Pertaining to persons/
groups and/or events in:

	Predominant		General	
Agriculture				
Commerce				
Communication				
Culture				
Education				
Industry				
Military				
Politics				
Religion				
Science				
Society				
Topography				
Transportation				
	________	+	________	=

Comments

ARCHITECTURAL
EVOLUTION

Association with:

	Master		Prominent			
Architect/Firm						
Landscape Architect/ Firm						
Engineer/Firm						
Planner/ Developer						
	____	+	____	=		=
	Innovated		Advanced			
Technological Change						
Style Change						
	____	+	____			=
	Forerunner		Fashion		Revival	
Execution Date						
	____	+	____	+	____	=

STYLE REPRESENTATION

style	primary elements		secondary elements		tertiary elements	
Original Representation	____________	+	____________	+	____________	=
Current Representation	____________	+	____________	+	____________	=

comments:

		District	City	Region	Nation	
Current Rarity	Designer					
	Technology					
	Style					
	Date					
		______ +	____ +	______ +	______	=
URBAN DESIGN CONTRIBUTION						
Siting	Creation of Dramatic Site					=
	Resolution of Difficult Site					=
Relationship to District Characteristics	Form					
	Scale					
	Rhythm					
	Expression					

FACTORS FOR URBAN DESIGN ANALYSIS	Form	Topography
		Climate
		Connective Pattern
		Volume/Voids
	Scale	Proportions
		Perception of Mass
		Grain
	Rhythm	Cadence of Elements
		Texture
	Expression	Symbols
		Reference Points
		Sequences
	Light	Color
		Visible Patterns

FORM

TOPOGRAPHY	General Character	Plain	
		Hill	
		Mountain	
		Valley	
		Meadow	
		Plateu	
		Fill	
	Prominent Features	Water	
		Tidal wetland	
		Inland wetland	
		Rock outcropping	
		Hills	
		Woodlands	

FORM

CLIMATE	Temperature		Variation from median temperature due to sun and winds
	Sun Angles		Volume of shadowing.
	Precipitation Gathering		Collection spots for rain and snow.

FORM

	Winds		Orientation to prevailing winds.
CONNECTIVE PATTERNS			Geometry of routes, open space, and buildings as seen in plan.
	Radiocentric		Circular range of influence originating at center. Center and radiants of equal weight.
		Star	Center of greater weight than circle of radiants.
		Ring	Circle of radiants at outer edge of greater weight than center.
	Triangular		Triangular range of influence among 3 or more weights.
		Hierarchy	Many weights with 1 of greater weight.
		Satellite	Influential radiants from greatest weight to lesser weights.
		Constellation	Influential radiants from greatest weight to lesser weights and from lesser weights to lesser weights.
	Linear		Linear range of influence between 2 or more weights.
		Compound	Lesser weighted linear influence perpendicular to a major linear influence.
		Alternate	Lesser weighted linear influences perpendicularbut not crossing and

FORM				originating on opposite sides of a major linear influence.
			Branch	Less weighted linear influences angled to major linear influence; lesser weighted linear influences angled to less weighted influences.
		Rectilinear		Rectangular influence among 4 or more weights.
			Axis	Rectangular influences of greater weight separated by perpendicular linear influence.
		Sheet		Combinations.
	VOLUME/ VOID	Degree of Enclosure		Seen in section: distance to building height.
			Full enclosure	45^0 angle : distance:building height = 1:1.
			Threshold	30^0 1:2
			Minimum	18^0 1:3
			Loss	Equal or lesser than 14^0
		Types of Enclosure		Seen in section.
			Corridor	Two edges parallel to primary visual ray of viewer, terminated by object perpendicular to pvr.

		Tunnel	Viewer inside two sided enclosure with covering.
		Canopy	Viewer inside covered enclosure with one side.
		Curvelinear	Viewer inside enclosure with one or more curved verticals.
		Bowl	Viewer inside enclosure with curved ground level.
		Crest	Enclosure like pyramid; viewer inside or outside on slopes.
	Edges	Distinctive	Buildings.
		Bleeding	
	Borders	Distinctive	Districts.
		Bleeding	

SCALE

PROPORTIONS			All proportions to be expressed in ratio of: 1:x:y. "1" represents human scale, to be derived from Architectural Standards.
	Measurements of Elements		Measurements 1 -12 applicable to individual buildings; composite and median for districts. 13-20 for district only.

Measurements	S	Site
	SW	Site Width
	SL	Site Length
	B	Building
	BH	Buildng Height
	BW	Building Width
	BD	Building Depth
	B^x	Block
	RH	Roof Height at Peak
	RW	Roof Width at Top
	FH	Fenestration Height
	FW	Fenestration Width
	FD	Fenestration Depth
	EH	Element Height
	EW	Element Width
	ED	Element Depth
	SD	Sidewalk
	SDW	Sidewalk Width
	SDFH	Sidewalk Furniture Height
	SDFW	Sidewalk Furniture Width

Measurements	ST	Street
	STW	Street Width
Proportional Ratios	1:SW:BW	
	1:SL:BD	
	1:BH:RH	
	1:BH:RH	
	1:FH:FW	
	1:BH:FH	
	1:BD:FD	
	1:BH:EH	
	1:BW:EW	
	1:BD:ED	
	1:EH:EW	
	1:$B^{X}W$:(SW-BW) + SDW + STW	
	1:SDW:STW	
	1:SFH:BH	
	1:SFW:BW	
	1:SFH:SDW	
	1:SFW:BW	

SCALE

	Measurements	1:SFH:SDW	
		1:SFW:STW	
		1:SFW:SDW	
		1:SFW:STW	
PERCEPTION OF MASS	Viewing Distance	Details Noticed	Maximum Viewing Distance: Building Height = 1:1
		Whole Composition	1:2
		Object to Surroundings	1:3
		Object as Forward Edge in Scene	1:4
	Distortions	Foils	Disorienting objects between viewer and building.
		Color Accentuates	Colors and/or lighting which may apparent distortion of scale.
	Grain		Degree of fineness to courseness of repeated elements.
		Generators	Scale of repeated elements.
		Comparatives	Objectives which allow direct comparison to human scale.

RHYTHM	CADENCE OF ELEMENTS			Marks cadence of occurence. Median feet of target information = x. Cadence = $x/\frac{\underline{y}}{x}/\frac{\underline{z}}{x}$
		Side Setbacks		
		Streetline Front Setbacks	[illegible]Projections	
			Recessions	
		Roofline Building Height/ Building Width	Projections	
			Recessions	
		Directional Expressions	Facade Proportions	
			Fenestration Proportions	
		Glazed Surfaces	Horizontal Sections	
			Vertical Sections	
		Fenestration Pattern	Horizontal Section	
			Vertical Section	
		Architectural Elements		
		Street Elements		
YTHM	TEXTURE			Degree of mixture of homogeneaus or heterogeneous elements
		Pattern of Similar to Dissimilar Elements		
		Pattern of Symmetry to		

EXPRESSION

SYMBOLS	Temporal	Juxtaposition of Historic Styles	
		Diurnal Activities	
		Seasonal Activities	
	Territorality	Private Membership versus Public Accessibility	
		Identification with Special Interest Group	
	Use	Signage	
		Elements	

EXPRESSION

REFERENCE POINTS	Landmarks		Highly visible and well known element or space.
	Nodes		Spaces significant for activity.
	Preferred Paths		Spaces significant for pedestrians or special automobile traffic.
	Transitional Gates		Physical representation of interface of districts.
SEQUENCES			Seen in section: Building/ Street/ Building

EXPRESSION

SEQUENCES	Vistas		Vision toward a point. Quality of center of vision on horizon line, including vertical reference frame.
		Panorama	Wide reference frame.
		Grandiose	End object clearly centered in frame in Beaux Art tradtion.
		Silhouette	Greater destance results in figure/ground distortions.
		Close	Shorteneddistance results in detailed perception.
		Deflected	Bulk of object off center of frame.
		Screened	Something between viewer and end object partially closes perception of end object.
		Netted	Multiple frames caused by penetration in blocking object.
		Depressed	End object below horizon line.
		Raised	End object above horizon line.
		Closed	Potential of vista completely blocked.
		Secondary	Major end object replaced by secondary object.
	Serial Vision		Vision and movement toward point; linked vistas.
		Entrance	Point where first aware of

				sequence.
			Gated	Formal entrance.
			Emerging Views	Point where vision transfered.
			Punctuation	Objects which cause segmentation.
			Exit	Point where last aware of sequence.
LIGHT	COLOR	Color Mass	Materials	
			Paints	
		Color Accents	Materials	
			Paints	
LIGHT	VISIBLE PATTERNS	Building Materials		
		Natural versus Man-made Lighting		

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